

## GENERAL FEATURES

- Double-side articulated body
- Potentiometric measurement
- Potentiometric, 4-20 mA or 0-10V analog output options
- Optionally cable or DIN 43650-C socket connection
- Measurement lengths between 10 mm and 300 mm
- Long life up to 100 million movements
- High accuracy
- High operating speed up to 5 m/s
- Compact design

The LFM series position rulers can be used to measure linear or angular movements thanks to its double-sided articulated body.

They work as ABSOLUTE because they are measuring with the potentiometric principle, that is, they do not lose their position in case of power off. Potentiometric, 4-20 mA (optional 0-20 mA) or 0-10V analog output options are available.

Because of their linearized conductive plastic resistance alloy and special contacts, they are not affected by wear and operate for a long time with a life cycle of up to 100 million. They are stable by being linear and they measure evenly.

## TECHNICAL SPECIFICATIONS

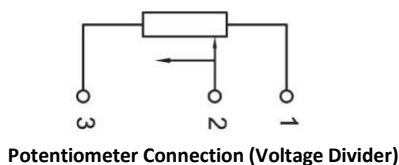
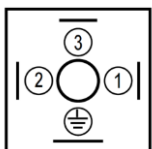
Model	LFM 010	LFM 025	LFM 050	LFM 075	LFM 100	LFM 125	LFM 150	LFM 200	LFM 250	LFM 300
<b>Electrical Stroke (mm)</b>	10	25	50	75	100	125	150	200	250	300
<b>Mechanical Stroke (mm)</b>	12	27	52	77	102	127	152	202	252	302
<b>Independent Linearity</b>	±%1	±%0,5	±%0,4	±%0,25	±%0,2	±%0,2	±%0,2	±%0,1	±%0,1	±%0,1
<b>Repeatability</b>	0.01 mm									
<b>Max Operating Speed</b>	5 m/s									
<b>Resistance Element</b>	Conductive Plastic									
<b>Resistance</b>	5K, 10K (optional other)									
<b>Output Signal</b>	4-20 mA (optional 0...20 mA), 0-10V or Potentiometric									
<b>Supply Voltage</b>	For current and voltage output models: 12...30 VDC For potentiometric output model: 42V max.									
<b>Electrical Connection</b>	DIN 43650-C socket or 3 x 0,14 mm <sup>2</sup> shielded PVC cable									
<b>Operating Temperature</b>	-30°C...+100°C									
<b>IP Protection Class</b>	IP40									
<b>Life</b>	100 million movements									
<b>Rod Material</b>	Stainless Steel									
<b>Body Material</b>	Aluminum									

## ELECTRICAL CONNECTION

SIGNAL	CABLE COLOR	DIN 43650-C SOCKET
+VDC	Red	Pin 1
Output Signal*	Yellow	Pin 2
-VDC	Black	Pin 3

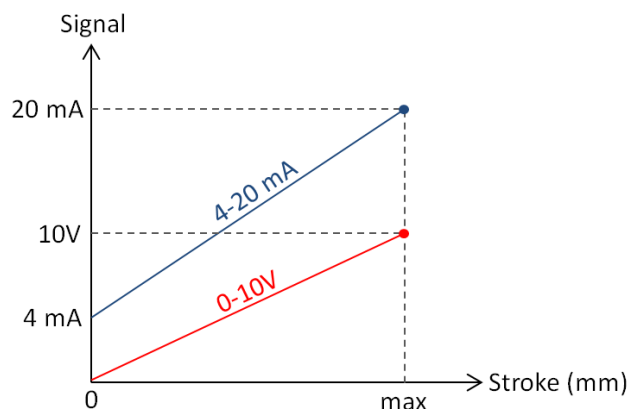
\* **Output Signal** may be potentiometric, 0-10 VDC or 4-20 mA depending on the model (See Product code table).

### DIN 43650-C SOCKET



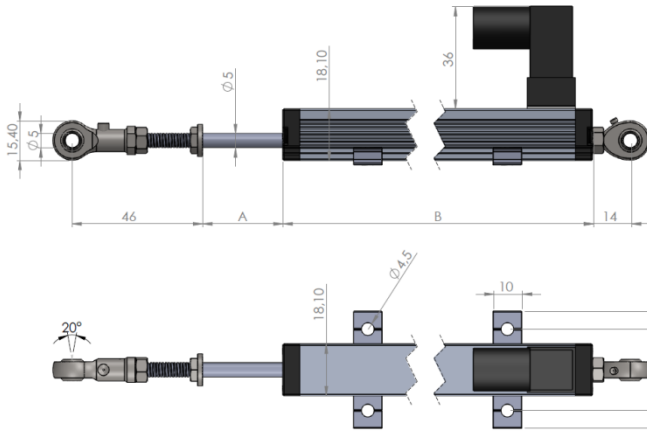
**Note:** The GND line of the feed and signal output is common. Therefore it can be connected with 3-wire cable

### Analog Output Signal Graphic

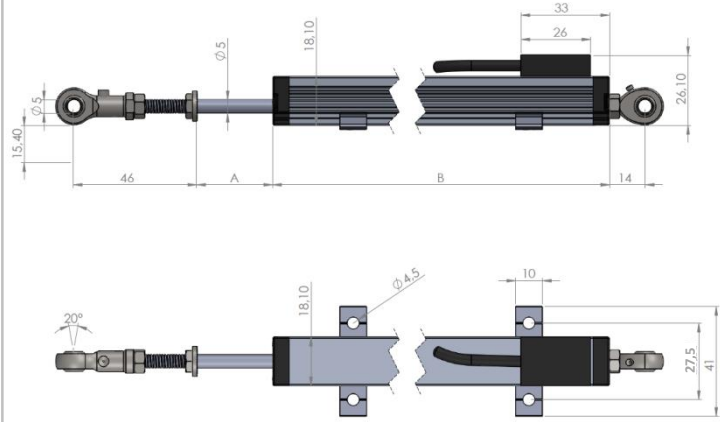


## MECHANICAL DIMENSIONS (mm)

### MODEL WITH DIN 43650-C SOCKET



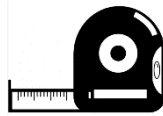
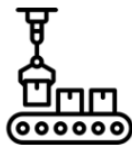
### MODEL WITH 3 x 0,14 mm<sup>2</sup> CABLE



	Stroke (mm)	10	25	50	75	100	125	150	200	250	300
Potentiometric Output (with cable or socket)	A	12	27	52	77	102	127	152	202	252	302
	B	48	63	88	113	138	163	188	238	288	338
0-10 V or 4-20 mA Output (with cable)	A	12	27	52	77	102	127	152	202	252	302
	B	48	63	88	113	138	163	188	238	288	338
0-10 V or 4-20 mA Output (with socket)	A	12	27	52	77	102	127	152	202	252	302
	B	82	97	122	147	172	197	222	272	322	372

## SAMPLE APPLICATION FIELDS

- Measuring /control technology
- Manufacturing engineering like woodwork machines, riveting machines, packaging machines and welding machines etc.
- Assembly / test devices
- Medical applications
- Building technology



## ORDER CODE

### Model No

L F M - X - X - X - X

### Measuring Lengths (stroke)

Different measuring lengths between 10 mm and 300 mm

### Output Signal

A: 4-20 mA (\*Optional 0-20 mA )  
V: 0-10 VDC  
No Code: Potentiometric

### Resistance Value

5K: 5KΩ  
10K: 10KΩ

### Electrical Connection

No Code: DIN43650-C socket  
2M: 2 meters PVC cable (standard)  
(\*Optionally different cable lengths)



## Atek Sensor Technologies

Tuzla KOSB Organize Sanayi Bölgesi Melek Aras Bulvarı, No:67 34956 Tuzla-İstanbul / TURKEY

Tel: +90 216 399 44 04

Fax: +90 216 399 44 02

[www.ateksensor.com](http://www.ateksensor.com)

[info@ateksensor.com](mailto:info@ateksensor.com)



**DISTRIBUTOR / DISTRIBUIDOR**  
Brazil and South America / Brasil e América do Sul



www.metrolog.net



Metrolog Controles de Medição

**Address / Endereço:**

Rua Sete de Setembro, 2656  
13560-181 - São Carlos - SP  
Brazil / Brasil

**Phone / Telefone:**

+55 (16) 3371-0112  
+55 (16) 3372-7800

**Internet:**

www.metrolog.net  
metrolog@metrolog.net

**Atek Sensor Technology A.S.**



Tuzla Kimya Sanayicileri Org. San. Bolg. Melek Aras Bulvari, No:67 34956 Tuzla-Istanbul / TURKEY  
Tel: +90 216 399 44 04 Fax: +90 216 399 44 02  
[www.ateksensor.com](http://www.ateksensor.com) [info@ateksensor.com](mailto:info@ateksensor.com)